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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-----------------------------|------------------|
| 10/524,259 | 02/11/2005 | Mihoko Ohashi | Q86191 | 9908 |
| 23373 | 7590 | 10/09/2007 | | |
| SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037 | | | EXAMINER BERMAN, SUSAN W | |
| | | | ART UNIT | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/524,259

Applicant(s)

OHASHI ET AL.

Examiner

/Susan W. Berman/

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 28-31 is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-27 and 32-39 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/07.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

Response to Amendment

The rejection of claims 1-39 under 35 U.S.C. 112, second paragraph, is withdrawn.

Response to Arguments

The rejection of claims 1-8, 10-28, 30 and 32-39 as being anticipated by Feiring et al (6,790,587) is withdrawn.

The rejection of claims 1-8, 10-27 and 32-39 as being unpatentable over Araki et al (6,069,215) in view of Feiring et al (6,790,587) is maintained. The recitation "cyclic ether structures" include the epoxy structures taught by Araki et al.

Applicant's arguments filed 07-26-2007 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-8, 10-27 and 32-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Araki et al (6,069,215) in view of Feiring et al (6,790,587). Araki et al '215 disclose materials for coating compositions comprising a fluorine-containing polymer derived from fluorine-containing monomers having functional groups, such as epoxy groups (column 3, line 43, to column 4, line 8, column 6, lines 18-64, column 8, lines 8-10 and 25-36). Monomer (M2) in instant claim 3 is taught in column 7, formula (2). Monomer (M3) in instant claim 4 is taught in column 7, formula (5). Use for optical parts is taught in column 24, lines 59-67. Araki et al '215 does not mention adding a photoacid generator.

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Feiring et al teach adding a photoacid generator to an analogous fluorinated polymer to provide acid upon exposure to radiation that causes deprotection and production of hydrophilic acid groups in the fluorinated polymer to facilitate development under aqueous conditions. It would have been obvious to one skilled in the art at the time of the invention to add a photoacid generator to the fluorinated polymer compositions disclosed by Araki et al, as taught by Feiring et al in analogous art. One skilled in the art at the time of the invention would have been motivated by a reasonable expectation of providing acid upon exposure to radiation that causes deprotection and production of hydrophilic acid groups in the fluorinated polymer to facilitate development under aqueous conditions, as taught by Feiring et al.

Allowable Subject Matter

Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 28-31 are allowed.

The prior art does not teach fluorinated polymers having pendant groups as defined in the instant claims wherein the cyclic ether structure is an oxetane structure.

Conclusion

Obayashi et al (US 2003/0120008) disclose fluorine containing polymers corresponding to the instant claimed polymers wherein a and b are each zero. Rf¹ in the formula set forth by Obayashi et al can be an alicyclic structure containing an ether bond (paragraph [0013]). Photoacid generators are taught in paragraphs [0124] to [0126]. Sugiyama et al disclose oxetane monomers having a vinyl ether polymerizable group. The difference from the instantly claimed

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monomers is that Sugiyama et al do not teach the fluorine-containing alkylene or fluorine-containing alkylene ether linking groups in instantly claimed formula (M).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Susan W. Berman/ whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SB
9/30/2007

/Susan W Berman/
Primary Examiner
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